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CONFIRMATION NO.

016348/9005

INFORMATION DISCLOSURE

SERIAL NO.:

09/929,865

STATEMENT BY APPLICANT:

APPLICANT:

Henderson, et al.

(Use several sheets if necessary) FILING DATE: August 14, 2001

GROUP:

8708 1634

U.S. PATENT DOCUMENTS

EXAMINE R INITIAL		DOCUMENT NUMBER	DATE	NAME	CL	SUBCLASS	FILING DATE IF APPROPRIATE
					A S S		
W	AA	USSN 09/974,757 US 2002/0042081	04/11/2002	Henderson et al.			
	AB	USSN 09/929,865 US 2002/0076927	06/20/2002	Henderson et al.	$\mathcal{A}$		
	AC						
	AD	USSN 10/179,102 US 2003/0013111	01/16/2003	Henderson et al.			
	AE	USSN 10/160,372 US 2002/0172943 A1	11/21/2002	Henderson et al.			
	AF	USSN 10/128,727 US 2002/0123135	09/05/2002	Henderson et al.			
	AG						
	AH	US 2002/0179434 A1	12/05/2002	Dai et al.			
	AI	US 2002/0146714 A1	10/10/2002	Lieber et al.			
	AJ	US 2002/0122873 A1	09/05/2002	Mirkin et al.			
	AK	US 2002/0114987 A1	08/22/2002	Oscarsson et al.			
1	AL	US 2002/0063212 A1	05/30/2002	Mirkin et al.			,
	AM	4,728,591	03/01/1988	Clark et al.			
	AN	5,106,729	04/21/1992	Lindsay et al.	$\neg \tau$		
	AO	5,138,174	08/11/1992	Tang			
	AP	5,143,854	09/01/1992	Pirrung et al.	$\top \top$		
	AQ	5,314,829	05/24/1994	Coles			
	AR	5,346,683	09/13/1994	Green et al.			
	AS	5,363,697	11/15/1994	Nakagawa			
	AT	5,372,930	12/13/1994	Colton et al.			
	AU	5,384,261	01/24/1995	Winkler et al.			
	AV	5,440,122	08/08/1995	Yasutake			
	AW	5,443,791	08/22/1995	Cathcart et al.	-1		
	AX	5,445,934	08/29/1995	Fodor et al.	-17	T-1	
	AY	5,445,971	08/29/1995	Rohr, T.	17		
	AZ	5,453,970	09/26/1995	Rust et al.	11	11	
	BA	5,467,642	06/09/1998	Hosaka et al.			
1	BB	5,472,881	12/05/1995	Beebe et al.	1/		
<del>-  </del>	BC	5,482,601	01/09/1996	Ohshima, et al.	1/-	<del>                                     </del>	
	BD	5,514,540	05/07/1996	Teoule et al.	-11-	<del> 1</del>	
+	BE	5,514,550	05/07/1996	Findlay et al.	<del>-  -</del>	<del>                                     </del>	
1.	BF	5,519,212	05/21/1996	Elings et al.	-11	1	
<del></del>	BG	5,532,128	07/02/1996	Eggers et al.	<del>   </del>	<del></del>	<del></del>

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IN	ВН	5,571,639	11/05/1996	Hubbell et al.	$\overline{\Lambda}$	Т	eg		T
	BI	5,601,982	02/11/1997	Sargent et al.	TT	$\top$	7		
	BJ	5,604,097	02/18/1997	Brenner	11	丁		<u> </u>	1
	BK	5,620,854	04/15/1997	Holzrichter et al.	$\forall$	TΤ		<del>                                     </del>	
. 1	BL	5,666,190	09/09/1997	Quate et al.	T.	T		1	
	ВМ	5,670,322	09/23/1997	Eggers et al.	1	11			
	BN	5,688,486	11/1/8/1997	Watson et al.	Т	11			
$\overline{}$	ВО	5,720,928	02/24/1998	Schwartz	1	1		i	
	BP	5,744,305	04/28/1998	Fodor et al.	1	7			
	BQ	5,753,088	05/19/1998	Olk, C.	Τ	7			
	BR	5,760,300	06/02/1998	Kajimura, H.	T	11			
	BS ·	5,763,768	06/09/1998	Henderson et al.	$\top$	11			
	BT	5,789,167	08/04/1998	Konrad	T	⇈			
	BU	5,800,992	09/01/1998	Fodor et al.	$\top$	#		1-	1
	BV	5,837,832	11/17/1998	Chee et al.		╫			
	BW	5,840,862	11/24/1998	Bensimon et al.	1	╫			
	BX	5,846,724	12/08/1998	Bensimon et al.	$\top$	1		1-	
	BY	5,851,769	12/22/1998	Gray et al.	$\top$	1		$\top$	<del>- </del>
	BZ	5,866,328	02/02/1999	Bensimon et al.	1	1		1	
	CA	5,866,434	02/02/1999	Massey et al.	✝	╫		1	
	СВ	5,874,219	02/23/1999	Rava et al.	1	1		1	
	CC	5,874,668	02/23/1999	Xu et al.		7		1	· · · · · · · · · · · · · · · · · · ·
	CD	5,958,701	09/28/1999	Green et al.		1		1	
	CE	5,965,133	10/12/1999	Cantor et al.	$\top$	71		1	
	CF	5,981,733	11/09/1999	Gamble et al.		$\Pi$		T	1
	CG ·	5,985,356	11/16/1999	Schultz et al.	1	T			
	CH	5,992,226	11/30/1999	Green et al.		$\Pi$			
	CI	5,993,627	11/30/1999	Anderson et al.	1	T			
	CJ	6,004,617	12/21/1999	Schultz et al.	1	П		1	
	CK	6,024,925	02/15/2000	Little et al.	1	Ħ		<b></b>	
	CL	6,033,911	03/07/2000	Schultz et al.	$\top$	Ħ		1	· · · · · · · · · · · · · · · · · · ·
	CM	6,045,671	04/04/2000	Wu et al.	1	$\Pi$		i —	
	CN	6,080,586	06/27/2000	Baldeschwieler et al.	1	11			
	CO	6,083,763	07/04/2000	Balch		П			
	CP	6,087,274	07/11/2000	Tonucci et al.		П			
	CQ	6,110,426	08/29/2000	Shalon et al.	$\Box$	$\top$			
	CR	6,123,819	09/26/2000	Peeters	17	7			
	CS	6,143,574	11/07/2000	Karlsson et al.	17	7			
	CT	6,146,899	11/14/2000	Porter et al.	1/	$\top$			<del> </del>
	CU	6,159,742	12/12/2000	Lieber et al.	#	$\top$		_	
	CV	6,171,797 B1	01/09/2001	Perbost	1	$\top$			
	ĊW	6,180,114	01/30/2001	Yager	1	$\top$			
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1634

A				,			
	CX	6,200,737	03/13/2001	Walt et al.	_11_		
	CY	6,203,814 B1	03/20/2001	Fisher et al.	Ш	1\	
	CZ	6,214,552	04/10/2001	Heroux, et al.	$\prod$		
	DA	6,218,122	04/17/2001	Friend et al.	П		
	DB	6,231,744 B1	05/15/2001	Ying et al.	П	1	
	DC	6,232,706 B1	05/15/2001	Dai et al.	П	T ~ T	
	DD	6,239,273 B1	05/29/2001	Pease et al.			
	DE	6,255,469	07/03/2001	Seeman et al.	71	1	
	DF	6,270,946	08/07/2001	Miller	71		
	DG	6,278,231 B1	08/21/2001	lwasaki et al.	7/		
	DH	6,284,497 B1	09/04/2001	Sabanayagam et al.	1		
	DI	6,287,850 B1	09/11/2001	Besemer et al.			
	DJ	6,289,717	09/18/2001	Thundat et al.	1	1 1	·
	DK	6,309,831 B1	10/30/2001	Goldberg et al.	1		
	DL	6,329,209 B1	12/11/2001 .	Wagner et al.			
	DM	6,331,396 B1	12/18/2001	Silverman	7		
	DN	6,350,609	02/26/2002	Morozov et al.	$\neg \vdash$	T	
	DO	6,395,554	05/28/2002	Regan et al.	71	1 1	
	DP	6,406,921 B1	06/18/2002	Wagner et al.	71		
	DQ	6,416,952	07/09/2002	Pirrung et al.	$\Pi$		
	DR	6,420,105	07/16/2002	Landfield et al.			<u> </u>
	DS	6,436,647 B1	08/20/2002	Quate et al.			
	DT	6,518,168	02/11/2003	Clem et al.	$\sqcap$		
	DÚ	6,573,369 USSN 09/574,519	06/03/2003	Henderson et al.			
					$\prod$		

FOREIGN PATENT DOCUMENTS EXAMINER DOCUMENT TRANSLATION INITIAL NUMBER DATE COUNTRY **ICLASS** SUBCLASS D۷ JP 08094646 4/12/1996 SHIMADZU CORP **ABS** JP 07027771 DW 1/31/1995 HITACHI LTD. ABS JP 06124680 1994 DX JEOL LTD. ABS WO 98/05920 2/12/1998-WILLIAM MARSH DY RICE UNIVERSITY (COLBERT) 9/17/1992 DZ WO 92/15709 ABBOTT LABORATORIE WO 96/31975 10/10/1996 EA **OSCARSSON** EB WO 97/06420--02/02/1997 BENSIMON

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WO 97/18326.

-05/22/1997

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EE EF EG EH EI EJ	WO 99/31267 WO 00/04382 WO 00/04389 WO 00/04399 WO 00/36136 WO 00/41213		SEPRACOR INC. ZYOMYX, INC. ZYOMYX, INC. ZYOMYX, INC. ZYOMYX, INC. PALATIN TECHNOLOGIES, INC. NORTHWESTERN							
eg Eh Ei Ej	WO 00/04382 WO 00/04389 WO 00/04399 WO 00/36136	- 1/27/2000 - 1/27/2000 - 1/27/2000 - 6/22/2000	ZYOMYX, INC. ZYOMYX, INC. ZYOMYX, INC. PALATIN TECHNOLOGIES, INC.							
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EJ	WO 00/36136-	- 6/22/2000	PALATIN TECHNOLOGIES, INC.							-
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EK	WO 00/41213_	7/13/2000	NORTHWESTERN	1		1				****
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EL	WO 00/46406-	- 8/10/2000	ALPHAGENE, INC.	Π	T			Т		
EM	WO 01/60316-	08/23/2001	OSCARSSON, SVEN	Π	T			T		
EN	WO 01/918555	12/06/2001	NORTHWESTERN UNIVERSITY				1			
EO	WO 03/001633	01/03/2003	NORTHWESTERN UNIVERSITY				$\top$			
EP	WO 03/036767_	05/01/2003	UNIVERSITY OF ILLINOIS							
EQ	WO 03/038033_	-05/08/2003	NORTHWESTERN UNIVERSITY						·	
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ОТ	HER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
M	ET	"Microbeam Mass Spectrometry" Chemical Science and Technology Laboratory, Surface and Microanalysis Science Division <a href="http://www.cstl.nist.gov/div837/Divisoin/expertise/ions/masspec1.htm">http://www.cstl.nist.gov/div837/Divisoin/expertise/ions/masspec1.htm</a> 7/18/2002.
	EU	Abstracts of Papers Part I, 214th "Abstract 027" ACS National Meeting American Chemical Society, September 1997, 2 pgs.
	EV	ALLISON, D., et al., "Direct atomic force microscopy imaging of EcoRI endonuclease site specifically bound to plasmid DNA molecues" PNAS USA, 1996, 93:8826-8829.
	EW	ALLISON, D., et al., "Mapping Individual Cosmid DNAs by Direct AFM Imaging"  Genomics, 1997, 41:379-384.
	EX	ALVES, et al., "Atomic scale imaging of alkanethiolate monolayers at gold surfaces with atomic force microscopy: J. Am. Chem. Soc., February 1992,114(4):1222-1227.
	EY	AMRO, et al., "Patterning surfaces using tip-directed displacement and self-assembly" Langmuir, 2000, 16:3006-3009.
	EZ	ANWANDER, et al., "Surface characterization and functionalization of MCM-41 silicas via silazane silylation" J. Phys. Chem. B., 2000, 104:3532-3544.
	FA	ARNTZ, et al., "Label-free protein assay based on a nanomechanical cantilever array" Nanotechnology, 14 (2003) 86-90.
	FB	AUSUBEL, F.M., et al. "Current Protocols in Molecular Biology" 1993 ed. Vol. 1&2, 1993, Green Publishing Associates and Wiley-Interscience.
	FC	AVOURIS, P., et al., "Engineering Carbon Nanotubes and Nanotube Circuits Using Electrical Breakdown" Science, April 2001, 292(5517):706-799
	FD	BAILEY, C.P., et al., Cationic oligonucleotides can mediate specific inhibition of gene expression in Xenopus oocytes" Nuc. Acids Res., 1998, 26(21):4860-4867.
	FE	BAIN, et al., "Modeling organic surfaces with self-assembled monolayers" Agnew. Chem. Int. Ed. Engl., 1989, 28(4):506-512.
	FF	BASELT, D.R., et al., "A biosensor based on magnetoresistance technology" Biosens. Bioelectorn, 1998, 13(7-8):731-739.
,	FG	BEDOUELLE, H., "Reagentless fluorescent Immunosensors" Antibody Engineering, IBC's 13th International Conference, December 2, 2002.
h	FH	BELAUBRE, P. et al., "Fabrication of biological microarrays using microcantilevers" Applied Physics Letters,. 5 May 2003, 82(18):3122-3124.

**EXAMINER** 

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FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2-92) PATENT AND TRADEMARK OFFICE

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	TO	HER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
P	1	FI	BENSIMON, A., et al., "Alignment and sensitive detection of DNA by a moving interface" Science, 1994, Sep 30; 265(5181):2096-2098 [PMID 7522347] Abstract.
		FJ	BERGGREN, et al., "Microlithography by using neutral metastable atoms and self-assembled monolayers" Science, September 1995, 269(5228):1255-1257.
		FK	BERNARD, et al. 'Printing patterns of proteins" Langmuir The ACS Journal of Surfaces and Colliod, April 1998, 14(9):2225-2229.
		FL	BINGGELI, et al., "Influence of capillary condensation of water on nanotribology studied by force microscopy" Appl. Phys. Lett., July 1994, 65(4):415-417.
		FM	BINNING, et al., "Surface studies by scanning tunneling microscopy" Phys. Rev. Lett., 1982, 49(1):57-61.
		FN	BINNING, G., et al., "Atomic force microscope Phys. Rev. Lett., 1986, 56(9):930-933.
		FO	BISHOP, et al., "Self-assembled monolayers: recent developments and applications" Colloid & Interface Science, February 1996, 1:127-136.
		FP	BOTTOMLEY, L., "Scanning probe microscopy" Anal. Chem., June 1998, 70(12):425R-475R.
		FQ	BRANDOW, S., et al., "Metal pattern fabrication using the local electric field of conducting atomic force microscope probe" J. Vac. Sci. Technol., May/June 1997, 15(3):1455-1459.
	_	FR	BRENNER, S., et al., "Gene expression analysis by massively parallel signature sequencing (MPSS) on microbead arrays" Nat. Biotechnol 2000, June 18(6):630-634, 2000.
		FS	BRODY, E., and Gold, L., "Aptamers as therapeutic and diagnostic agents" <i>Molecular Biotechnology</i> , 2000, 74:5-13.
		FT	BRUCKBAUER, et al., "Writing with DNA and Protein Using a Nanopipet for Controlled Delivery" JACS, 2002, A-B.
		FU	BULYK, et al., "Quantifying DNA-protein interactions by double-stranded DNA arrays" Nature Biotechnology, June 1999, 17:573-577.
		FV	BUSTAMANTE C., et al., "Circular DNA Molecules Imaged in Air by Scanning Force Microscopy" Biochemistry, 1992, 31:22-26
	N	FW	BUSTAMANTE, C., et al., "Biochemical and structural applications of scanning force microscopy" Curr. Opin. Struct. Biol., 1994 4(5):750-760.

**EXAMINER** 

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1634

	OT	HER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
(	W	FX	CARR, et al., "High-selectivity pattern transfer process for self-assembled monolayer electron beam resists" J. Vac. Sci. Technol., May/June 1997, 15(3):1446-1450.
		FY	CHENG, et al., "Preparation and hybridization analysis of DNA/RNA from E. coli on microfabricated bioelectronic chips" Nature Biotechnology, 1998, 16:541-546.,
	1	FZ	CHRISEY et al, 'Fabrication of patterned DNA surfaces' Nucleic Acids Research, (10/1996)24(15):3040-3047.
		GA	CLARK, M.W. et al., "Nanotechnology tools for functional proteomics analysis" American Biotechnology Laboratory, March 2001, 16-18.
		GB	COLAS, et al., "Genetic selection of peptide aptamers that recognize an inhibit cyclin-dependent kinase 2", Nature, April 1996 380(11):548-550.
		GC	COLVIN, et al. "Semiconductor nanocrystals covalently bound to metal surfaces with self-assembled monolayers" J. Am. Chem. Soc., 1992, 114:5221-5230.
		GD	CUI, Y, et al., "Nanowire nanosensors for highly sensitive and selective detection of biological and chemical species" Science, 2001, 293, 1289-1292.
		GE	DAI, et al., "Nanotube Molecular Wires as Chemical Sensors" Science, 28 January 2000, 287:622-625.
		GF	DAI, H, et al., "Controlled chemical routes to nanotube architectures" Physics and Devices, J. Phys. Chem B, 1999, 103:11246-11255.
	-	GG	DAI, H, et al., "Probing electrical transport in nanomaterials: conductivity of individual carbon nanotubes" Science, 1996, 272(5261):523-526.
		GH	DAMMER, et al., "Binding strength between cell adhesion proteoglycans measured by atomic force microscopy" Science, 1995, 267:1173-1175.
		GI	DAMMER, et al., "Specific antigen/antibody interactions measured by force microscopy" Biophys. J., 1996, 70:2437-2441.
	a	GJ	
		GK	DELAMARCH, E., et al., "Patterned delivery of immunoglobulins to surfaces using microfluidic networks" Science, 1997, 276:779-781.

EXAMINER

DATE CONSIDERED

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1634

	OTHER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
K	GL	DING, Y., OKA, T., et al., "Near-field stimulated TOF nanometric surface mass spectroscopy: characterization of Nano-localized surfaces" Joint International Meeting - 200th Meeting of the Electrochemical Society, Inc., 52nd Annual Meeting of the International Society of Electrochemistry, San Francisco, California (2001).
	GM	DING, Y., RUGGERO, M. et al., "Development of UHV-STM/TOF hybrid mass analyzer system for nano-characterization of metal silicide surfaces" 198th Meeting of the Electrochemical Society, Phoenix, Arizona (2000).
	GN	DeRISI, et al., "Exploring the Metabolic and Genetic Control of Gene Expression on a Genomic Scale" Science, October 1997, 278:680-686.
	GO	DONG, Y. and SHANNON, C., "Heterogeneous Immunosensing Using Antigen and Antibody Monolayers on Gold Surfaces with Electrochemical and Scanning Probe Detection" <i>Anal. Chem.</i> , 2000, 72:2371-2376.
	GP	DONTHA, N., et al., "Development of sub-micron patterned carbon electrodes for immunoassays" J. Pharm. Biomed. Analysis, (February 1999) 19:83-91.
	GQ	DONTHA, N., et al., "Generation of Biotin/Avidin/Enzyme Nanostructures with Maskless Photoligography" Anal. Chem., 1997, 69: 619-2625
	GR	DUBOIS, L. et al., "Synthesis, Structure, and Properties of Model Organic Surfaces" Annu. Rev. Phys. Chem., 1992, 43:437-463.
	GS	DURBIN, S., FEHER, G., "Protein crystallization" Annual Review of Phys Chemistry, 1996, 47:171-204.
	GT	FALVO, M.R., et al., "Bending and buckling of carbon nanotubes under large strain" Nature, 1997, 389:582-584.
	GU	FAN, S., et al., "Self-oriented regular arrays of carbon nanotubes and their functional devices" Science, 1999, 283, 512.
	GV	FANG, et al., "Membrane Protein Microarrays" JACS, 2002, 124(11):2394-2395.
	GW	FARAJIAN, A.A., et al., "Nonlinear Coherent Transport Through Doped Nanotube Junctions" Physical Review, June 21, 1999, 82(25):5084-5087.
	GX	FEIGON, J. "DNA triplexes, quadruplexe, and aptamers" Clin. Chem., 1994, 40(4):647-647.
	GY	FLORIN, E., et al., "Adhesion forces between individual ligan-receptor pairs" Science, 1994, 264:415-417.
h	GZ	FODOR, S., et al., "Light-directed spatially addressable parallel chemical synthesis" Science 1991, 251: 767-773.

**EXAMINER** 

DATE CONSIDERED

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

SERIAL NO.:

016348/9005

INFORMATION DISCLOSURE STATEMENT BY APPLICANT:

(Use several sheets if necessary)

09/929,865

APPLICANT:

Henderson, et al.

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August 14, 2001

CONFIRMATION NO.

ATTY. DOCKET NO.:

8708

GROUP:

1634

07	THER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
IK	НА	FODOR, S., et al., "Multiplexed biochemical assays with biological chips" Nature, 1993, 364:555-557.
	НВ	FRISBIE, C.D., et al., "Functional group imaging by chemical force microscopy" Science, 1994, 265:2071-2074.
	НС	FRITZ, J., et al., "Translating biomolecular recognition into nanomechanics" Science, 2000, 316-318.
	HD	FRITZSCHE, W., et al., "Application of Atomic Force Microscopy to Visualization of DNA, Chromatin and Chromosomes" Critical Reviews in Eukaryotic Gene Expression, 1997, 7(3):231-240.
	HE	FRITZSCHE, W., et al., "Chicken Erythrocyte Nucleosomes Have a Defined Orientation along the Linker DNA-A Scanning Force Microscopy Study" Scanning, 1997, 19:42-47.
	HF	FRITZSCHE, W., et al., "Mapping elasticity of rehydration metaphase chromosomes by scanning force microscopy" Ultramicroscopy, 1997, 69:191-200.
	HG	FRITZSCHE, W., et al., "Ribosomes substructure investigated by scanning force microscopy and image processing" Journal of Microscopy, 1998, 189, Pt 1, 50-56.
	НН	FUJIHIRA, et al., "Effect of capillary force on friction force microscopy: a scanning hydrophilicity microscope" Chemistry Letters, July 1996, 7:499-500.
	HI	GILLEN, G., BENNETT, J., et al., "Molecular imaging secondary ion mass spectrometry for the characterization of patterned self-assembled monolayers on silver and gold" Anal. Chemistry, 1994, 66:2170-2174.
	HI	GIRAULT, S., CHASSAING, G. et al, "Coupling of MALDI-TOF mass analysis to the separation of biotinylated peptides by magnetic streptavidin beads" Anal. Chemistry 1996, 68:2122-2126.
	нк	GRABAR, et al., "Preparation and characterization of Au colloid monolayers" Anal. Chem., 1995, 67(4):735-743.
	HIL	HAAB, et al., "Protein microarrays for highly parallel detection and quantitation of specific proteins and antibodies in complex solutions" Genome Biology, 2001, 2(2)0004.1-0004.13.
	НМ	HANSMA, H.G., et al., "Atomic force microscopy of long and short double-stranded, single-stranded and triple-stranded nucleic acids" Nuc. Acids Res., 1996, 24(4):713-720.
	HN	HANSMA, H.G., et al., "Recent advances in atomic force microscopy of DNA" Scanning 1993, 15(5):296-9.
M	НО	HANSMA, H.G., SINSHEIMER, R.L., et al., "Atomic force microscopy of single- and double-stranded DNA" Nucleic Acids Research 1992, 20:3585-90.

**EXAMINER** 

M

DATE CONSIDERED

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2-92) PATENT AND TRADEMARK OFFICE

(Use several sheets if necessary)

ATTY. DOCKET NO.: SERIAL NO.: 016348/9005

INFORMATION DISCLOSURE

09/929,865

APPLICANT:

Henderson, et al.

FILING DATE:

August 14, 2001

CONFIRMATION NO.

8708

GROUP:

1634

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) HANSMA, P.K., et al., "Tapping mode atomic force microscopy in liquids" Appl. Phys. Lett., 1994, 64(13):1738-1740. но HELLER, et al., "Discovery and analysis of inflammatory disease-related genes using cDNA microarrays" PNAS USA, 1997, 94: 2150-2155. HR HENDERSON, E., "Atomic force microscopy of conventional and unconventional nucleic acid structures" Journal of Microscopy, 1992, 77-84. HS HENDERSON, E., "Imaging and nanodissection of individual supercoiled plasmids by atomic force microscopy" Nuc. Acids Res., 1992, 20(3):445-447. HENDERSON, E., "Imaging of Living Cells by Atomic Force Microscopy" Progress in HT Surface Science, May 1994, 46(1):39-60. Ηυ HENDERSON, E., "Molecular force detection and spectroscopy with the atomic force microscope" Science Progress, 1998, 81(2):141-151. HV HENDERSON, E., et al., "Actin Filament Dynamics in Living Glial Cells Imaged by Atomic Force Microscopy" Science, 1992, 257:1944-1946. HW HENDERSON, E., et al., "New Ribosome Structure" Science, 1984, 255:510-512. HENDERSON, E., et al., "Telomeric DNA oligonucleotides form novel intramolecular HX structures containing guanine-guanine base pairs" Cell, 1987, 51(6):899-908. HENDERSON, et al., "A method for gold coating experimental detector beampipes" HY httb://www.Ins.cornell.edu/public/CBN/1999/CBN99-7/cbn99-7.pdf, 1999. HZ HILLER, et al., "Microarrayed allergen molecules: diagnostic gatekeepers for allergy treatment" FASEB, 2002, 16:414-416. HINTERDORFER, P. et al., "Detection and localization of individual antibody-antigen ÍΑ recognition events by atomic force microscopy" PNAS, 1996, 93:3477-3481. HOH, J.H., and HANSMA, P.K., "Atomic force microscopy for high resolution imaging in IB cell biology" Trends in Cell Biology, 1992, 2:208-213. IC HOH, J.H., et al., "Atomic force microscopy and dissection of gap junctions" Science, 1991, 1405-1408.

**EXAMINER** 

M

DATE CONSIDERED

1/05

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO .:

016348/9005

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09/929,865

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Henderson, et al.

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August 14, 2001

CONFIRMATION NO.

8708

GROUP:

1634

0	THER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
M	ID	HOH, J.H., et al., "Quantized adhesion detected with the atomic force microscope" J. Am. Chem. Soc., 1992, 114:4917-4918.
	IE	HOLLAND, Vacuum Deposition Of Thin Films (Wiley, New York, NY, 1956) (Book Reference Not Being Provided)
	IF	HONG, et al., "A new tool for studying the in situ growth processes for self-assembled monolayers under ambient conditions" Langmuir, 1999, 15:7879-7900.
	IG	HONG, et al., "Multiple ink nanolithography: toward a multiple-pen nano-plotter" Science, 1999, 286:523-525.
	IH .	HONG, S. et al. "A Nanoplotter with Both Parallel and Serial Writing Capabilities" Science, June 9, 2000, 288:1808-1811.
	11	HOVIS, et al., "Cyloaddition chemistry and formation of ordered organic monolayers on silicone (001) surfaces" Surface Science, 1998, 402-404, pgs. 1-7.
	13	HOVIS, et al., "Structure and bonding of ordered organic monolayers of 1,5-cyclooctadiene on the silicon (001) Surface" J. Phys. Chem. B., 1997, 101: 9581-9585.
	IK	HU, et al., "Imaging the condensation and evaporation of molecularly thin films of water with nanometer resolution" Science, 1995, 268(5208):267-269.
	IL	HUCK, et al., "Patterned polymer multilayers as etch resists" Langmuir, 1999, 15:6862-6867.
	lM	IVANISEVIC, et al., "Dip-Pen Nanolithography on Semiconductor Surfaces" J. Am. Chem. Soc., 2001, 123:7887-7889.
	IN	IYER, et al., "The Transcription Program in the Response of Human Fibroblasts to Serum" Science, 1999, 283(5398):83-87.
	IO	JACKMAN, et al., "Fabrication of submicrometer features on curved substrates by microcontact printing" Science, 1995, 269: 664-666.
	IP	JAMES, et al., "Patterned protein layers on solid substrates by thin stamp microcontact printing" Langmuir, 1998, 14:741-744.
	IQ	JANES, et al., "Electronic conduction through 2D arrays of nanometer diameter metal clusters" Superlattices and Microstrucures, 1995, 18(4):275-282.
	IR	JASCHKE, et al., "Deposition of organic material by the tip of a scanning force microscope" Langmuir, 1995, 11:1061-1064.
m	IS	JIN, X., UNERTL, W., "Submicrometer modification of polymer surfaces with a surface force microscope" Applied Physics Letters, 1992, 61(6): 657-659.

**EXAMINER** 

**DATE CONSIDERED** 

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO.:

016348/9005

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Henderson, et al.

(Use several sheets if necessary)

FILING DATE:

August 14, 2001

CONFIRMATION NO.

8708

GROUP:

1634

	IT	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)  JONES, V., et al., "Microminiaturized Immunoassays Using Atomic Force Microscopy and
W		Compositionally Patterned Antigen Arrays 66" Anal. Chem., 1998, 70(7):1233-1241.
	IU	KARPOVICH, et al., "Direct measurement of the adsorption kinetics of alkanethioilate self-assembled monolayers on microcrystalline gold surface" Langmuir, 1994, 10:3315-3322.
	IV	KIM, et al., "Nanotube nanotweezers" Science, 10 December 1999, 286:2148-2150.
	IW	KNEZEVIC et al., "Proteomic profiling of the cancer microenvironment by antibody arrays" Proteomics, 2001,. 1:1271-1278.
	IX	KOCHANEK, et al., "Transcriptional silencing of human ALU sequences and inhibition of protein binding in the box B regulatory elements by 5'CG3" methylation" FEBS Lett., 1995, 360(2):115-120 [PMID 7875314] Abstract.
	IY	KOMEDA, et al., "Octadecyltrichlorosilane self-assembled-monolayer islands as a self-patterned-mask for HF etching of SiO <sub>2</sub> on Si" J. Vac. Sci. Technol A., 1998, 16(3):1680-1683
	IZ	KUMAR, et al., "The use of self-assembled monolayers and a selective etch to generate patterned gold features" J. Am. Chem. Soc., 1992, 114:9188-9189.
	JA	LAHIRI, et al., "Patterning ligands on reactive SAMs by microcontact printing" Langmuir, 1999, 15:2055-2060.
	JB	LAIBINIS et al., "w-terminated alkanethiolate monolayers on surfaces of copper, silver, and gold have similar wettabilities!" J. Am. Chem. Soc., 1992, 114: 1990-1995.
	JC	LAL, R. and JOHN, S.A., "Biological applications of atomic force microscopy" Am J. Physiology, 1994, 266(1):1-21.
	1D	LANIO, T., et al., "PCR-based random mutagenesis method using spiked oligonucleotides to ransomize (randomize?) selected parts of gene without any wild-type background"  Bioteechniques, 1998, 25(6):958-965.
	JЕ	LEE, et al., "Nanometer-scale lithography on H-passivated Si(100) by atomic force microscope in air" J. Vac. Sci. Technol. A., 1997, 15(3):1451-1454.
	JF	LEE, G. et al. "Direct measurement of the forces between complementary strands of DNA" Science, 1994, 266:771-773,
	JG	LERCEL, et al. "Self-assembled monolayer electron-beam resists on GaAs and SiO <sub>2</sub> " J. Vac Sci. Technol. B., 1993, 11(6): 2823-2828.
n	JH	LERCEL, et al., "Sub-10nm lithography with self-assembled monolayers" Appl. Phys. Lett. 1996, 68(11):1504-1506.

**EXAMINER** 

**DATE CONSIDERED** 

FORM PTO-1445

APR 2 6 2004 E

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT:

(Use several sheets if necessary)

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016348/9005

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09/929,865

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Henderson, et al.

FILING DATE:

August 14, 2001

CONFIRMATION NO.

8708

GROUP:

1634

		OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)  LIU, et al., "Nanofabrication of self-assembled monolayers using scanning probe lithography
W	Л	Acc. Chem. Res., 2000, 33(7):457-466.
7	11	LO, et al., "Organic and inorganic contamination on commercial AFM cantilevers" Langmuii 1999, 15:6522-6526.
	JK	LÜTHI, et al., "Parallel nanodevice fabrication using a combination of shadow mask and scanning probe methods: Applied Physics Letters, 1999, 75(9):1314-1316.
	JL	LUTWYCHE, et al., "5X5 2D AFM cantilever arrays a first step toward Terabit storage device" Sensors and Actuators, 1999, 73:89-94.
	JM	LYNCH, M., et al., "A Reliable Preparation Method for Imaging DNA by AFM"  Microscopy Today, 1999, 99(9) 1 pg.
	JN	LYUBCHENKO, Y.L., et al., "Atomic force microscopy of DNA and bacteriophage in air, water and propanol: The role of adhesion forces" Nuc. Acids Res., 1993, 21(5):1117-1123.
	JO	MACAYA, et al., "Thrombin-binding DNA aptamer forms a unimolecular quadruplex structure in solution" PNAS USA, April 1993, 90:3745-3749.
	JP	MacBEATH, G. and SCHREIBER, S.L., "Printing Proteins as Microarrays for High-Throughput Function Determination" Science, 8 September 2000, 289:1760-1763.
	JQ	MAGNO, R., BENNETT, B., "Nanostructure patterns written in III-V semiconductors by an atomic force microscope" Applied Physics Letters, 1997, 70(14):1855-1857.
	JR	MALMBORG, et al., "Real Time Analysis of Antibody-Antigen Reaction Kinetics", Scand. J. Immunol., 1992, 35:634-650.
	JS	MARSH, T.C., et al., "A new DNA nanosctructure imaged by scanning probe microscopy" Nuc. Acids Res. 1995, 23(4):696-700.
	JT	MARSH, T.C., et al., "G-wires: Self-assembly of a telometic oligonucleotide, d(GGGGTTGGGG), into large superstructures" Biochemistry 1994, 33:10718-10724.
	ענ	MARTIN, B., et al., "Ortogonal Self-Assembly on Colloidal Gold-Platinum Nanorods"  Advanced Materials, 1999, 11:1021.
	JV	MATTEUCCI, et al., "Synthesis of deoxyoligonucleotides on a polymer support 1" J. Am. Chem. Soc., 1981, 103:3185-3191.
M	JW	MAYNOR, et al., "Au :Ink" for AFM "Dip-Pen" Nanolithography" Langmuir, 2001, 17:2575-2579.

**EXAMINER** 

M

DATE CONSIDERED

1/05

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO .:

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Henderson, et al.

FILING DATE:

August 14, 2001

8708

GROUP:

1634

TO	HER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
Ш	JX	MAZZOLA, L., "Discrimination of DNA hybridization using chemical force microscopy" Biophysical Journal, 1999, 76:2922-2933.
	JY	MAZZOLA, L., "Imaging biomolecule arrays by atomic force microscopy" <i>Biophysical Journal</i> , 1995, 68:1653-1660.
	JZ	McEUEN, et al., "Crossed Nanotube Junctions" Science, 21 April 2000, 288:494-497.
	KA	MEISTER, et al., "Nanoscale Dispensing of Liquids through Cantilevered Probes" MNE '02, Lugano, Switzerland, 16-19 September 2002.
	КВ	MENDOZA, et al., "High-Throughput Microarray-Based Enzyme-Linked Immunosorbent Assay (ELISA)" BioTechniques, 1994, 27(4):778-788.
	KC	MEYER, G. and N.M. AMER, "Novel optical approach to atomic force microscopy" Appl. Phys. Lett., 1988, 53:1045-1047.
	KD	MINNE, et al., "Centimeter scale atomic force microscope imaging and lithography" Applied Physics Letters, 1998, 73(12):1742-1744.
	KE	MINNE, S.C., et al., "Automated parallel high-speed atomic force microscopy" Appl. Phys. Lett., 1998, 72(18):2340-2342.
	KF	MIRKIN, et al., "Dip-Pen Nanolithography: Controlling Surface Architecture on the Sub-100 Nanometer Length Scale" Chemphyschem, 2001, 2:37-39.
	KG	MIRKIN, et al., "Programming the Assembly of Two- and Three-Dimensional Architectures with DNA and Nanoscale Inorganic Building Blocks" Invited Contribution from Recipient of ACS Award in Pure Chemistry" Inorg. Chem., 2000, 39:2258-2272.
	KH	MOSHER, C., et al., "Nano Arrays, The Next Generation Molecular Array Format for High Throughput Proteomics, Diagnostics and Drug Recovery" JALA, 2000, 5(5):75-83.
	KI	MOY, et al., "Intermolecular Forces and Energies Between Ligands and Receptors" Science, 1994, 266:257-259.
	KJ	MOY, V.T., et al., "Probing the forces between complimentary strands of DNA with the atomic force microscope" SPIE, 1995, 2384:2-12.
	KK	MUELLER, et al., "Atomic force microscopy deposition of poly-1-lysine structures onto lipid bilayers supported by mica" "Langmuir, 2000, 16:9568-9570.
h	KL	MÜLLER, et al., "Nanostructuring of alkanethiols with ultrastrap field emitters" J. Vac. Sci. Technol. B., 1995, 13(6):2846-2849.

**EXAMINER** 

DATE CONSIDERED

EXAMINER

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO.:

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CONFIRMATION NO.

August 14, 2001

GROUP:

8708 1634

	OTHER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
M	KM	MURRAY, et al., "Atomic force microscopy of biochemically tagged DNA" Proc., Natl., Acad. Sci., 1993, 90:3811-3814.
	KN	MUSIL, C., 'Nanostructuring of gold electrodes for immunosensing applications: J. Vac. Sci. Technol. B., 1995, 13(6):2781-2786.
	ко	NIU, et al., "Atomic force microscopy of DNA-colloidal gold and DNA-protein complexes" SPIE Advances in DNA Sequencing Technology, 1993, 1891:71-77.
	КР	NOY, et al., "Chemical force microscopy: exploiting chemically-modified tips to quantify adhesion, friction, and functional group distributions in molecular assemblies" J. Am. Chem., 1995, 117:7943-7951.
	KQ	NOY, et al., "Chemically-sensitive imaging in tapping mode by chemical force microscopy: relationship between phase lag adhesion" Langmuir, 1998, 14:1508-1511.
	KR	NUZZO, R., "Spontaneously organized molecular assemblies. 3. Preparation and properties of solution adsorbed monolayers of organic disulfides on gold surfaces" J. Am. Chem. Soc., 1987, 109:2358-2368.
	KS	NYFFENEGGER, et al., "Nonometer scale surface modification using the scanning probe microscope: progress since 1991" Chem. Rev., 1997, 97:1195-1230.
	КТ	O'BRIEN, J., et al., "Immunosensing Platforms Using Spontaneously Absorbed Antibody Fragments on Gold" Analytical Chemistry, 2000, 72(4)703-710 [PMID 10701253] Abstract.
	KU	OSHIO, T. et al., "Atomic force microscopy detection system using an optical fiber heterodyne interferometer free from external disturbances" Ultramicroscopy 42-44 (July 1992) 310-314.
	KV	PAWELETZ, et al., "Reverse phase protein microarrays which capture disease progression shoe activation of pro-survival pathways at the cancer invasion front" Oncogen, 2001, 20:1981-1989.
	KW	PAWLAK, et al., "Zeptosens' protein microarrays: A novel high performance microarray platform for low abundance protein analysis" <i>Proteomics</i> , 2002, 2:383-393.
	кх	PERKINS, et al., "Fabrication of 15 nm wide trenches in Si by vacuum scanning tunneling microscope lithography of an organosilane self-assembled film and reactive ion etching" Appl. Phys. Lett., 1996, 68(4):550-552.
	KY	PFANNSCHMIDT, et al., "Sequence-specific labeling of superhelical DNA by triple helix formation and psoralen crosslinking" Nucleic Acids Research, 1996 24(9):1702-1709.
	KZ	PINER, et al., "Improved imaging of soft materials with modified AFM tips" Langmuir, 1999, 15:5457-5460.
·	LA	PINER, R.D., et al., "Dip-Pen Nanolithography" Science, January 29, 1999,283(5402):661-663.
V	LB	PINER, Richard, "Effect of water on lateral force microscopy in air" Langmuir, 1997, 13:6864-6868.

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

DATE CONSIDERED

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO.:

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CONFIRMATION NO.

8708

**GROUP**:

1634

0'	THER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
M	LC	PUTNAM, C.A.J., "Tapping atomic force microscopy in liquids" Appl. Phys. Lett., 1994, 64(18):2454-2456.
	LD	QIN, et al., "Fabrication of ordered two-dimensional arrays of micro- and nanoparticles using patterned self-assembled monolayers as templates: Adv. Matter, 1999, 11(17):1433-1437.
	LE	RANKIN, P.C. WILSON, A.T. "The Surface Chemistry of the Mica-Aluminum-Sulfate System" Journal of Colloid and Interface Science, (1969) 30(3):277-282.
	LF	REED, et al., "Conductance of molecular junction" Science, 1997, 278:252-254.
	LG	RIEF, et al., "Reversible unfolding of individual Titin lg-domains by AFM" Science, 1997, 276:1109-1111.
	LH	RIEF, M., et al., "Single Molecule Force Spectroscopy on Polysaccharides by Atomic Force Microscopy" Science, 1997, 275:1295-1297.
	LI	RIEF, M., et al., "The mechanical stability of immunoglobulin and fibronectin III domains in the muscle protein titin measured by atomic force microscopy" <i>Biophysical Journal</i> , 1998, 3008-3014.
	LJ	ROBINSON, et al., Autoantigen microarrays for multiplex characterization of autoantibody responses" Nature Medicine, March 2002, 8(3):1-7.
	LK	SANTOS, et al., "Probing hydrophobic interactions of surfaces and macromolecules with atomic force microscope" Book of Abstracts, 214 ACS National meeting, September 7-11, 1997, PHYS-248.
	LL	SASTRY, et al., "Formation of patterned hetrocolloidal nanoparticle thin films" Langmuir, 2000, 16:3553-3556.
	LM	SCHAUS, S., et al., "Cell Viability and Probe-Cell Membrane Interactions of XR1 Glial Cells Imaged by Atomic Force Microscopy" Biophysical Journal, September 1997, 73:1205-1214.
	LN	SCHENA, et al., "Parallel human genome analysis: Microarray-based expression monitoring of 1000 genes" PNAS USA, 1996, 93:10614-10619.
	LO	SCHENA, M., Microarray Biochip Technology, Eaton Publishing, NatickMA 2000. (Book Reference Not Being Provided).
	LP	SCHOER, et al., "Scanning probe lithography. 4. Characterization of scanning tunneling microscope-induced patterns in n-Alknethiol self-assembled monolayers" Langmuir, 1997, 13:2323-2332.
n	LQ	SCHUMACHER, et al., "Nanomachining of mesoscopic electronic devices using an atomic force microscope" Applied Physics, 1999, 75(8):1107-1109.

**EXAMINER** 

**DATE CONSIDERED** 

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

(Use several sheets if necessary)

ATTY. DOCKET NO.:

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Henderson, et al. August 14, 2001

CONFIRMATION NO.

8708

GROUP:

1634

VT & TRAS	OTHER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
W	ID	SCHWARTZ, et al. "Meniscus Force Nanografting: Nanoscopic Patterning of DNA"  Langmuir, 2001, 17:5971-5977.
	LS	SCHWARTZ, et al., "Molecular Transport from an Atomic Force Microscope Tip: A Comparative Study of Dip-Pen Nanolithography" Langmuir, American Chemical Society, November 6, 2001
	LT	SCHWEITZER, et al., "Multiplexed protein profiling on microarrays by rolling-circle amplification" Nature Biotechnology, April 2002, 20:359-365.
	LU	SHAIU, W.L., et al., "Atomic Force Microscopy of Oriented Linear DNA Molecules Labeled with 5nm Gold Spheres" Nuc. Acids Res., 1993, 21(1):99-103.
	LV	SHAIU, W.L., et al., "Visualization of circular DNA molecules labeled with colloidal gold spheres using atomic force microscopy" J. Vac. Sci. Technol. A., 11(4):820-823.
	LW	SHEEHAN, et al., "Thiol diffusion and the role of humidity in "dip pen" nanolithography" Physical Review Letters, 15 April 2002, 88(15):156104-1-156104-4.
	LX	SHEEN, et al., "A new class of organized self-assembled monolayers: alkane thiols on GaAs (100)" J. Am. Chem. Soc., 1992, 114:1514-1515.
	LY	SHERMAN, Chemical Vapor Deposition For Microelectornices: Principles, Technology and Applications (Noyes, Park Ridges, NJ, 1987). (Book Reference Not Being Provided)
	LZ	SHLYAKHTENKO, L.S., et al., "Structure and dynamics of supercoil-stabilized DNA cruciforms" J. Mol. Biol., 1998, 280(1):61-72.
	MA	SHLYAKHTENKO, L.S., GALL, A.A., et al., "Atomic force microscopy imaging of DNA covalently immobilized on a functionalized mica substrate" <i>Biophysical Journal</i> , July 1999, 77:568-576.
	МВ	SILZEL, et al., "Mass-sensing, multianalyte microarray immunoassay with imaging detection" Clinical Chemistry, 1998, 44(9):2036-2043.
	МС	SMALLEY, et al., "Nanotube Device" Science, 3 October 1997, 278:100-103.
	MD	SMITH et al., "Overstretching B-DNA: the elastic response of individual double-stranded and single stranded DNA molecules" Science, 9 February 1996, 271:795-799.
	ME	SNOW, et al., "High speed patterning of a metal silicide using scanned probe lithography" Applied Physics Letters, 1999, 75(10):1476-1478.
	MF	

EXAMINER

DATE CONSIDERED

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016348/9005

SERIAL NO.:

09/929,865



INFORMATION DISCLOSURE STATEMENT BY APPLICANT:

(Use several sheets if necessary)

APPLICANT: FILING DATE: Henderson, et al. August 14, 2001

CONFIRMATION NO.

8708

GROUP:

1634

C	THER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
24	MG	SOH, H., et al., "Integrated nanotube circuits: controlled growth and ohmic contacts to single-walled-carbon nanotubes" Appl. Phys. Letts., 1999, 75(5): 627-629.
	МН	SONDAG-HUETHORST, et al., "Generation of electrochemically deposited metal patterns by means of electron beam (nano)lithography of self-assembled monolayer resists" Appl. Phys. Lett. 1994, 64(3):285-287.
	MI	SOUTHERN, E.M., "Detection of specific sequences among DNA fragments separated by gel electrophoresis" J. Mol. Biol. 1975, 98:503-517.
	MJ	Spectroscopy Europe – News February/March 2002, 6 pages, http://www.spectroscopyeurope.com/news14 1.html
	MK	SPENCE, J., WEIERSTALL, U., et al., "Atomic species identification in scanning tunneling microscopy by time of flight spectroscopy" J. Vac. Sci. Tech., 1996, B14(3):1587-1590.
	ML	SREEKUMAR, et al., "Profiling of cancer cells using protein microarrays: Discovery of novel radiation-regulated proteins" Cancer Research, 2001, 61:7585-7593.
	MM	STEINER, et al., "Adsorption of alkanenitriles and alkanedinitriles on gold and copper" Langmuir, 1992, 8:2271-2777.
	MN	STÖCKLE, R., SETZ, P. "Nanoscale Atmospheric Pressure Laser Ablation-Mass Spectrometry" Anal. Chem., 2001, 73(7):1399-1402.
	МО	SU, et al., "Moving beyond Molecules: Patterning Solid-State Features via Dip-Pen Nanolithography with Sol-Based Inks" JACS, 2002, 124(8):1560-1561.
	MP	SUN, et al., "Nanoscale Molecular Patterns Fabricated by Using Scanning Near-Field Optical Lithography" JACS, 2002, 124(11):2414-2415.
	MQ	TANG, K., FU, D., et al., "Matrix-assisted laser desorption/ionization mass spectrometry of immobilized duplex DNA probes" <i>Nucleic Acids Research</i> , 1995, 23(16):3126-3131.
	MR	TANS, et al., "Room-temperature transistor based on a single carbon nanotube" Nature, 7 May 1998, 393:49-52.
	MS	TARLOV, M.J., NEWMAN, J.G., et al., "Static secondary ion mass spectrometry of self-assembled alkanethiol monolayers on gold" Langmuir, 1992, 8:1398-1405.
M	MT	TIEN, et al., "Microfabrication through electrostatic self-assembly" Langmuir, 1997, 13:5349-5355.

**EXAMINER** 

DATE CONSIDERED

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HER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
MU	TROUGHTON, E., BAIN, C., et al., "Monolayer films prepared by the spontaneous self-assembly of symmetrical and unsymmetrical dialkyl sulfides from solution onto gold substrates: Structure, properties and reactivity of constituent functional groups" Langmuir, 1988, 4:365-385.
MV	TSUKAMOTO, et al. "Twin-probe scanning tunneling microscope" Rev. Sci. Instrum., July 1991, 62(7):767-1771.
MW	UETZ, P., et al., "A comprehensive analysis of protein-protein interactions in Saccharomyces cerevisiae" Nature, 10 February 2000, 403(6770):623-627.
MX	ULMAN, Abraham, "Formation and structure of self-assembled monolayers" Chem. Rev., 1996, 96:1533-1554.
MY	ULMAN, An Introduction To Ultrathin Organic Films: From Langmuir-Blodgett to Self-Assembly (Academic, Boston 1991) (Alkanethiols on gold). (Book Reference Not Being Provided)
MZ	VESENKA, J. et al., "A substrate preparation for reliable imaging of DNA molecules with the scanning force microscope" Ultramicroscopy, 1992, 42-44:1243-1249.
NA	VESENKA, J., et al., "Colloidal gold particles as an incompressable atomic force microscope imaging standard for assessing the compressability of biomolecules" <i>Biophys. J.</i> , 1993, 65:992-997.
NB	VESENKA, J., et al., "Combining optical and atomic force microscopy for life sciences research" BioTechniques, 1995, 19(2):240-253.
NC	VETTIGER, et al., "Ultrahigh density, high-data-rate NEMS-based AFM data storage system" Microelectronic Engineering, 1999, 46:11-17.
ND	VEZENOV, Dmitri, "Force titrations and ionization state sensitive imaging of functional groups in aqueous solutions by chemical force microscopy" J. Am. Chem. Soc., 1997, 119:2006-2015.
NE	VOSSMEYER, et al., "Combinatorial approaches toward patterning nanocrystals" Journal of Applied Pysics, 1998, 84(7):3664.
NF	WADU-MESTHRIGE, et al., "Fabrication and imaging of nanomneter-sized protein patterns" Langmuir, 1999, 15:8580-8583.
NG	WALLRAFF, et al., "Lithographic imaging techniques for the formation of nanoscopic features" Chem. Rev., 1999, 99:1801-1821.
NH	WALTERS, D.A., HAMPTON, A.D., et al. "Atomic force microscope integrated with a scanning electron microscope for tip fabrication" Applied Physics Letters, 8 August 1994, 65(6):787-789.
	MV MW MX MY MZ NA NB NC ND NE NF

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8708

**GROUP:** 

1634

OT	THER D	OCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
W	NI	WANG, et al., "Nanometer scale patterning and pattern transfer on amorphous Si, crystalline Si, and SiO <sub>2</sub> surfaces using self-assembled monolayers" Appl. Phys. Lett., 1997, 70(12):1593-1595.
	NJ	WEIERSTALL, U. SPENSE, J. "Atom species identification in STM using an Imaging Atom-Probe technique" Surface Science" 1998, 398: 267-279.
	NK	WHITESIDES, et al., "Self-assembled monolayers and lithography" Nanophase Chemistry 1995, 39: 109-122.
	NL	WILBUR, et al., "Scanning force microscopes can image patterned self-assembled monolayers" Langmuir, 1995, 11:825-831.
	NM	WILLIAMSON, et al., "G-quartets in biology: Reprise" PNAS USA, 15 April 1993, 90(8):3124-3124.
	NN	WILLIAMSON, et al., "Monovalent cation-induced structure of telomeric DNA: The G-quartet model" Cell, 1989, 59(5):871-880.
	NO	WILSON, et al., "Surface organization and nanopatterning of collagen by dip-pen nanolithography" PNAS, November 20, 2001, 98(24):13660-13664.
	NP	WONG, S., et al., "Covalently functionalized nanotubes as nanometre-sized probes in chemistry and biolog" Nature, 1998, 394:52-55.
	NQ	WONG, S., et al., "Covalently functionalized single-walled carbon nanotube probe tips for chemical force microscopy" Journal of the American Chemical Society, 1998, 120:8557-8558.
	NR	WONG, S., et al., "Functionalization of carbon nanotube AFM probes using tip-activated gases" Chem Physics Letters, 1999, 306:219-225.
	NS	XIA, et al., "A selective etching solution for use with patterned self-assembled monolayers of alkanethiolates on gold" Chem. Mater., 1995, 7:2332-2337.
	NT	XIA, et al., "Complex optical surfaces formed by replica molding against elastomeric masters" Science, 1996, 273: 347-349.
	NU	XIA, et al., "Pattern transfer: self-assembled monolayers as ultrathin resists" Microelectronic Engineering, 1996, 32:255-268.
	NV	XIA, et al., "Soft lithography" Agnew Chem. Int. Ed., 1998, 37:551-575.
	NW	XIA, et al., "Unconventional methods for fabricating and patterning nanostructures" Chem. Rev., 1999, 99:1823-1848.
n	NX	XU, et al., "Fabrication of nanometer scale patterns within self-assembled monolayers by nanografting" Langmuir, 1999, 15:7244-7251.
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8708

GROUP:

1634

ן מע	NY	XU, et al., "Nanometer-scale fabrication by simultaneous nanoshaving and molecular self-assembly: Langmuir, 1997, 13:127-129.
-	NZ	XU, et al., "Wetting and capillary phenomena of water on mica" J. Phys. Chem. B., 1998, 102:540-548.
	OA	YAN LI, et al., "Electrochemical AFM "Dip-Pen" Nanolithography" J. Am. Chem., Soc. 2001, 123:2105-2106.
	OB	YAN, et al. "Patterning a performed, reactive SAM using microcontact printing" J. Am. Chem. Soc., 1998, 120:6179-6180.
	ос	YAN, et al., "Patterning thin films of poly(ethylene imine) on a reactive SAM using microcontact printing" Langmuir, 1999, 15:1208-1214.
	OD	YING, et al., "Programmable Delivery of DNA through a Nanopipet" Anal. Chem., 2002, 74:1380-1385.
	OE	YOUIL, R., "Screening for mutations by enzyme mismatch cleavage with T4 endonuclear VII PNAS USA, 1995, 92(1):87-91.
	OF	ZHONG, Q., et al., "Fractured polymer/silica fiber surface studied by tapping mode atom force microscopy" Surf. Sci. Lett., January 3, 1993, 290: L 688-L692.
	OG	ZHU, et al., "Analysis of yeast protein kinases using protein chips" Nature Genetics, 200-26:283-289.
h	ОН	ZHU, et al., "Global Analysis of Protein Activities Using Proteome Chips" Science, September 2001, 293(14):2101-2105.

**EXAMINER** 

DATE CONSIDERED